EXHIBIT 1

JOINT CLAIM TERMS CHART MULTI-COLOR CORPORATION v. GRAPHIC PACKAGING INTERNATIONAL, INC., CIV. ACTION NO. 1:10-cv-280

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
Claim Term 1 heat transfer label	A multi-layered laminate which through the application of heat is adhered to an object and provides decoration or information about it.	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57). 2-19. The heat transfer label of claim 1 Abstract: A heat transfer label comprising a support portion	A multi-layered structure.	Intrinsic Evidence Background of Invention: Heat transfer labels are multilayered laminates, with each layer having its own function. (col. 1, 1l. 19-20). Figure 1 and Figure 2 illustrate multilayered structures. Prosecution History: Presently amended independent claim 1 is directed to a heat transfer label that (1) includes a support portion and a transfer portion, (2) wherein the transfer portion includes at least an ink layer and an adhesive layer having a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax, and (3) "wherein said ink layer is disposed between said adhesive layer and said support portion." Thus, the presently claimed structure
		and a transfer portion for transfer of the transfer portion from the support portion to an article. The article may be untreated polyethylene, polypropylene, PET, or acrylonitrile. Heat is applied to the support portion while the transfer		includes an ink layer that is disposed between a support portion (e.g., a carrier sheet) and the layer having a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax (i.e., the adhesive layer).

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 $^{^{1}}$ Pursuant to Local Patent Rule 105.2(d)(v), attached hereto as Exhibit A (U.S. Patent No. 7,622,171) and Exhibit B (prosecution history excerpts) is a copy of the intrinsic evidence cited by the Parties.

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		portion is placed into contact with the untreated polyethylene, polypropylene, or acrylonitrile article. (Abstract).		Response to Office Action, April 30, 2009, p. 9; <i>See also</i> Request for Continued Examination, June 17, 2009, p. 9.
		Field of Invention: The present invention relates generally to labels for various articles, and relates more specifically to heat transfer labels for articles, such as containers. (col. 1 ll. 5-7).		Extrinsic Evidence Dictionary Definition: 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
		Background of Invention: Heat transfer labels are commonly used in the decorating and/or labeling of commercial articles, such as, and without limitation, containers for beverages, essential oils, detergents, adverse		label: written or printed matter accompanying an article to furnish identification or other information (p. 1023)
		chemicals, and health and beauty aids. Heat transfer labels are desirably resistant to abrasion and chemical effects in order to avoid a loss of label information and desirably possess good characteristics of adhesion to the articles to which they are affixed. (col. 1 ll. 11-18).		Jeff Sloat and/or Saif Ansari, Graphic Packaging International, Inc., may provide testimony and opinions that the construction is correct and/or that Multi-Color's proposed construction is not correct.
		Heat transfer labels are multilayered laminates, with each layer having its own function. For example, heat transfer labels generally include an adhesive layer, an ink design layer, and a release layer. The release layer may be a wax release layer, and is often directly adjacent a carrier sheet,		
		such as on a roll or web of labels. Thus, in such an example, the label may be thought to include a "support portion" (e.g., carrier sheet and release layer and a "transfer portion" (i.e., ink design layer and adhesive layer). When subjected to heat, the wax release layer melts, thereby allowing the		

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 $^{^3}$ Merriam-Webster's Collegiate Dictionary (Deluxe Edition 1998).

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		transfer portion to be separated from the carrier sheet, and the adhesive layer adheres the ink design layer to an article being labeled. Alternatively, all or part of the wax release layer may transfer as well, to provide protection to the ink design layer. Additionally or alternatively, the labels may include a separate protective layer overlying the ink design layer to protect the ink design layer from abrasion. (col. 1 ll. 19-35). More specifically, in the heat transfer labeling process, the label-carrying sheet is subjected to heat, and the label is pressed onto an article with the ink design layer making direct contact with the article. (col. 1 ll. 36-39).		
		After transfer of the label to the article, the transferred wax release layer may be subjected to a postflaming technique which enhances the optical clarity of the layer (thereby enabling the ink design layer therebeneath to be better observed) and which enhances the protective properties of the transferred wax layer. (col. 1 ll. 51-56). Such heat transfer labels have been used to		
		decorate a variety of articles, such as polyethylene, polypropylene, PET, and acrylonitrile articles. (col. 1 ll. 57-59) One disadvantage associated with the use of the aforementioned label, and similar heat transfer labels, on polyethylene, polypropylene, PET, and/or acrylonitrile, is that the label will not adhere to a polyethylene, polypropylene, PET, or		
		acrylonitrile surface unless the surface has previously been treated by some oxidizing		

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		technique. (col. 2 ll. 5-10). Thus, it would be desirable to provide a heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, such as untreated high, medium, or low density polyethylene surfaces and/or untreated high, medium, or low density polypropylene surfaces. (col. 2 ll. 36-41). Summary of Invention: The present invention overcomes the drawbacks described above by providing a heat transfer label, which includes (a) a support portion; and (b) a transfer portion over the support portion for transfer of the transfer portion from the support portion to an article upon application of heat to the support portion while the transfer portion is placed into contact with the article, the transfer portion including an adhesive layer including a vinyl acetate resin (such as an ethylene vinyl acetate resin), a tackifying petroleum hydrocarbon, and a microcrystalline wax. (col. 2 ll. 46-55). The adhesive of the label of the present invention can bond to nonoxidized polyethylene, polypropylene, PET, and acrylonitrile surfaces, and thus allows for the elimination of surface pretreatment of the article being labeled. In addition to being directed to the above-described heat transfer label, the present invention is also directed to a method of labeling an untreated polyethylene, polypropylene, PET, or acrylonitrile surface with the above-described heat transfer label. (col. 2 l. 62 – col. 3 l. 2).		

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		Brief Description of the Drawings: FIG. 1 is a schematic section view of a heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, in accordance with the principles of the present invention. (col. 3 ll. 12-15).		
		FIG. 2 is a schematic section view of another heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, in accordance with the principles of the present invention. (col. 2 ll. 16-19).		
		Detailed Description of the Invention: Referring now to FIG. 1, there is shown a schematic section view of an embodiment of a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, such as untreated high-density polyethylene containers, untreated low-density polypropylene containers, untreated high-density polypropylene containers, and untreated low-density polypropylene containers. (col. 3 Il. 23-30).		
		One example of such a heat transfer label 10, as described above with respect to FIG. 1, is the CLEAR ADVANTAGE® label, commercially available from Multi-Color Corporation of Cincinnati, Ohio, the assignee of the present application. (col. 3 ll. 54-57). Referring now to FIG. 2, there is shown a schematic section view of a second embodiment of		

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		a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces. (col. 4 ll. 19-22).		
		One example of such a heat transfer label 10, as described above with respect to FIG. 2, is the THERIMAGE® label, commercially available from Multi-Color Corporation of Cincinnati, Ohio, the assignee of the present application. (col. 4 ll. 38-41).		
		Thus, the labels 10 of FIGS. 1 and 2 are similar in their constructs, with each including a carrier sheet 18, release layer (wax 30 or nonwax 20), protective lacquer layer 24, ink layer 26, and adhesive layer 28. It will be recognized by those skilled in the art that the CLEAR ADVANTAGE® and THERIMAGE® labels described above are merely examples of heat transfer labels, and that any other heat transfer labels may be used in the present invention. (col. 4 ll. 63 – col. 5 ll. 1-3).		
		The label 10 is particularly well suited for use with untreated polyethylene, polypropylene, PET, and acrylonitrile articles, such as high-density polyethylene articles, including untreated HDPE containers. (col. 7 ll. 32-35).		
		Prosecution History: Presently amended independent claim 1 is directed to a heat transfer label that (1) includes a support portion and a transfer portion, (2) wherein the transfer portion includes at least an ink layer and an adhesive layer having a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a		

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		microcrystalline wax, and (3) "wherein said ink layer is disposed between said adhesive layer and said support portion." Thus, the presently claimed structure includes an ink layer that is disposed between a support portion (e.g., a carrier sheet) and the layer having a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax (i.e., the adhesive layer). Response to Office Action, April 30, 2009, p. 9; <i>See also</i> Request for Continued Examination, June 17, 2009, p. 9.		
		Extrinsic Evidence Dictionary Definitions: ²		
		heat: ▶ n. 1. the quality of being hot; high temperature; it is sensitive to both heat and cold • Physics heat seen as a form of energy arising from the random motion of the molecules of bodies, which may be transferred by conduction, convention, or radiation. • technical the amount of heat that is needed to cause a specific process or is evolved in such a process; the heat of formation. • technical a single operation of heating something, esp. metal in a furnace. (pp. 780-781).		
		transfer: ▶ v. move (someone or something) from one place to another; he would have to transfer money to his own account ▶ n. an act of moving something or someone to		

 $[\]overline{\ }^{2}$ The New Oxford American Dictionary (2d ed. 2005).

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			another place (p. 1788). label: ▶ n. 1. a small piece of paper, fabric, plastic, or similar material attached to an object and giving information about it (p. 943).		
2	support portion	carrier sheet and release portion	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57). 17. The heat transfer label of claim 1, further comprising a release layer interposed between said support portion and said transfer portion, (col. 10 ll. 50-56). 18. The heat transfer label of claim 1, wherein said support portion includes a sheet of paper. (col. 10 ll. 57-58).	carrier sheet and release layer	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57). 17. The heat transfer label of claim 1, further comprising a release layer interposed between said support portion and said transfer portion, (col. 10 ll. 50-56). 18. The heat transfer label of claim 1, wherein said support portion includes a sheet of paper. (col. 10 ll. 57-58).

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		19. The heat transfer label of claim 18, wherein said support portion comprises one-sided clay-coated paper. (col. 10 ll. 59-60).		19. The heat transfer label of claim 18, wherein said support portion comprises one-sided clay-coated paper. (col. 10 ll. 59-60).
		Abstract: A heat transfer label comprising a support portion and a transfer portion for transfer of the transfer portion from the support portion to an article. The article may be untreated polyethylene, polypropylene, PET, or acrylonitrile. Heat is applied to the support portion while the transfer portion is placed into contact with the untreated polyethylene, polypropylene, or acrylonitrile article. (Abstract).		Background of Invention: Thus, in such an example, the label may be thought to include a "support portion" (e.g., carrier sheet and release layer and a "transfer portion" (i.e., ink design layer and adhesive layer). (col. 1 ll. 24-27). Detailed Description of the Invention: The carrier sheet 18 and the wax release layer 30 form the "support portion" 12 of the label. (col. 4 ll. 48-49).
		Background of Invention: Heat transfer labels are multilayered laminates, with each layer having its own function. For example, heat transfer labels generally include an		Extrinsic Evidence
		adhesive layer, an ink design layer, and a release layer. The release layer may be a wax release layer, and is often directly adjacent a carrier sheet, such as on a roll or web of labels. Thus, in such an example, the label may be thought to include a		Jeff Sloat and/or Saif Ansari, Graphic Packaging International, Inc., may provide testimony and opinions that the construction is correct.
		"support portion" (e.g., carrier sheet and release layer and a "transfer portion" (i.e., ink design layer and adhesive layer). When subjected to heat, the wax release layer melts, thereby allowing the		
		transfer portion to be separated from the carrier sheet, and the adhesive layer adheres the ink design layer to an article being labeled.		
		Alternatively, all or part of the wax release layer may transfer as well, to provide protection to the ink design layer. Additionally or alternatively, the labels may include a separate protective layer overlying the ink design layer to protect the ink		

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		design layer from abrasion. (col. 1 ll. 19-35).		
		However, the amount of the skim coat 22 transferred onto the article being labeled is		

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		generally not readily discernible. (col. 3 ll. 31-47). One example of such a heat transfer label 10, as described above with respect to FIG. 1, is the CLEAR ADVANTAGE® label, commercially available from Multi-Color Corporation of Cincinnati, Ohio, the assignee of the present application. The CLEAR ADVANTAGE® heat transfer label includes a carrier sheet 18 of one-sided clay-coated paper (at 28 pounds per ream). The clay-coated side of the carrier sheet 18 is adjacent to a nonwax release layer 20 of high-density polyethylene that is extruded onto the paper (at 8 pounds per ream). A skim coat 22 (generally a carnauba wax emulsion) is layered on top of the high-density polyethylene (at 0.25 to 1.0 pound per ream). The high-density polyethylene nonwax release layer 20 and skim coat 22 together form the release portion 16 and the carrier sheet 18 together form the support portion 12. The transfer portion 14 is formed from a protective lacquer layer 24, an ink layer 26, and an adhesive layer 28. The protective lacquer layer in the CLEAR ADVANTAGE® heat transfer label includes materials having release characteristics. The release portion 16 is not entirely wax, and so the lacquer layer 24 of the transfer portion needs some "help" in transferring from the support portion 12. (col. 3 l. 54-col. 4 l. 8). Referring now to FIG. 2, there is shown a schematic section view of a second embodiment of a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces. This		

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		label 10 also includes a support portion 12 and a transfer portion 14. The support portion 12 may include a carrier sheet 18, which is typically paper or a similarly suitable substrate, and a wax release layer 30, which is overcoated onto the carrier sheet. During label transfer, a small portion of the wax release layer 30 may be transferred along with the transfer portion 14 of the label 10 onto the article being labeled. Any wax that transfers may thereafter be subjected to a postflaming technique. (col. 4 ll. 19-30). One example of such a heat transfer label 10, as described above with respect to FIG. 2, is the THERIMAGE® label, commercially available from Multi-Color Corporation of Cincinnati, Ohio, the assignee of the present application. The THERIMAGE® heat transfer label includes a carrier sheet 18 of one side clay-coated paper (at 29.5 pounds per ream). The clay-coated side is adjacent to a wax release layer 30 (of either 75SR wax or 65RC wax, which will be described below). This wax is melted and flood-coated onto the one-sided clay-coated carrier sheet 18. The wax has a coat weight of 7 pounds per ream. The carrier sheet 18 and the wax release layer 30 form the "support portion" 12 of the label. The transfer portion 14 is formed of a protective lacquer layer 24, an ink layer 26, and an adhesive layer 28. More specifically, the protective lacquer layer can be a ViTEL® polyester. This layer has no release additives in the polyester. Release additives are not needed, since the wax release layer 30 is made entirely of wax and resin, and completely melts during the transfer process. (col. 4 ll. 38-57).		

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		The label 10 is particularly well suited for use with untreated polyethylene, polypropylene, PET, and acrylonitrile articles, such as high-density polyethylene articles, including untreated HDPE containers. Application of the label 10 to such items is preferably performed in the conventional thermal-transfer manner by contacting the adhesive layer 28 to the untreated high-density polyethylene container or other article, while applying sufficient heat to the back of the carrier web so as to cause the transfer portion 14 (and possibly a portion of the skim coat 22) to be released from the support portion 12, and so as to cause the adhesive layer 28 to become heat-activated for bonding of the transfer portion 14 to the desired article. Adhesion to the article can be measured by tape test. (col. 7 ll. 33-45). Prosecution History:		
		Presently amended independent claim 1 is directed to a heat transfer label that (1) includes a support portion and a transfer portion, (2) wherein the transfer portion includes at least an ink layer and an adhesive layer having a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax, and (3) "wherein said ink layer is disposed between said adhesive layer and said support portion." Thus, the presently claimed structure includes an ink layer that is disposed between a support portion (e.g., a carrier sheet) and the layer having a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax (i.e., the adhesive layer). Response to Office Action, April 30, 2009, p. 9; See also Request for Continued Examination, June 17, 2009, p. 9.		

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3	transfer portion	a portion that includes an ink layer and an adhesive layer	Extrinsic Evidence Dictionary Definitions: portion:	the portion that includes the protective lacquer layer, ink layer,	Intrinsic Evidence Claims:
			1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57).	and adhesive layer, but does not include the carrier sheet or release layer	1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57).

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		8. The heat transfer label of claim 1, wherein said transfer portion further comprises a protective lacquer layer. (col. 10 ll. 20-21). 10. The heat transfer label of claim 8, wherein said transfer portion further comprises a release agent and at least one of a hard polyester resin and an acrylic resin. (col. 10 ll. 28-30). 17. The heat transfer label of claim 1, further comprising a release layer interposed between said support portion and said transfer portion, (col. 10 ll. 50-56).		said transfer portion further comprises a protective lacquer layer. (col. 10 ll. 20-21). 10. The heat transfer label of claim 8, wherein said transfer portion further comprises a release agent and at least one of a hard polyester resin and an acrylic resin (col. 10 ll. 28-30). 17. The heat transfer label of claim 1, further comprising a release layer interposed between said support portion and said transfer portion, (col. 10 ll. 50-56).
		Abstract: A heat transfer label comprising a support portion and a transfer portion for transfer of the transfer portion from the support portion to an article. The article may be untreated polyethylene, polypropylene, PET, or acrylonitrile. Heat is applied to the support portion while the transfer portion is placed into contact with the untreated polyethylene, polypropylene, or acrylonitrile article. The transfer portion comprises an adhesive layer comprising a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax. (Abstract).		Background of Invention: Thus, in such an example, the label may be thought to include a "support portion" (e.g., carrier sheet and release layer and a "transfer portion" (i.e., ink design layer and adhesive layer). (col. 1 ll. 24-27). Detailed Description of the Invention: The carrier sheet 18 and the wax release layer 30 form the "support portion" 12 of the label. (col. 4 ll. 48-49).
		Background of Invention: Thus, in such an example, the label may be thought to include a "support portion" (e.g., carrier sheet and release layer and a "transfer portion" (i.e., ink design layer and adhesive layer). When subjected to heat, the wax release layer melts, thereby allowing the transfer portion to be separated from the carrier sheet, and the adhesive		Extrinsic Evidence Jeff Sloat and/or Saif Ansari, Graphic Packaging International, Inc., may provide testimony and opinions that the construction is correct.

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		layer adheres the ink design layer to an article being labeled. Alternatively, all or part of the wax release layer may transfer as well, to provide protection to the ink design layer. (col. 1 ll. 24-32).		
		Summary of Invention: The present invention overcomes the drawbacks described above by providing a heat transfer label, which includes (a) a support portion; and (b) a transfer portion over the support portion for transfer of the transfer portion from the support portion to an article upon application of heat to the support portion while the transfer portion is placed into contact with the article, the transfer portion including an adhesive layer including a vinyl acetate resin (such as an ethylene vinyl acetate resin), a tackifying petroleum hydrocarbon, and a microcrystalline wax. The transfer portion may further include (i) a protective lacquer layer, and (ii) an ink design layer proximal to the protective lacquer layer. The label may further include a wax release layer or wax-like release layer interposed between the support portion and the transfer portion. Thus, the protective lacquer layer may be interposed between the wax layer (or wax-like layer) and the ink layer. (col. 2 ll. 46-61). Detailed Description of the Invention: The label 10 includes a support portion 12 and a transfer portion 14. (col. 3 ll. 31-32).		
		During label transfer, a small portion of the skim coat 22 may be transferred along with the transfer portion 14 of the label 10 onto the article being labeled. (col. 3 ll. 42-45).		

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		The transfer portion 14 may include a protective lacquer layer 24 printed directly on top of at least a portion of the skim coat 22, an ink design layer 26 printed onto a desired area of lacquer layer 24, and an adhesive layer 28 printed over the ink design layer 26. The adhesive layer 28 may be printed onto a surrounding portion of the lacquer layer 24. (col. 3 ll. 48-53).		
		The transfer portion 14 is formed from a protective lacquer layer 24, an ink layer 26, and an adhesive layer 28. (col. 4 ll. 2-3).		
		The release portion 16 is not entirely wax, and so the lacquer layer 24 of the transfer portion needs some "help" in transferring from the support portion 12. (col. 4 ll. 6-8). The adhesive layer 28 of the transfer portion 14 may be heat-activatable. In one embodiment, the adhesive layer 28 may include a vinyl acetate resin (such as an ethylene vinyl acetate resin), a tackifying petroleum hydrocarbon resin, and a microcrystalline wax. (col. 4. ll. 13-17).		
		This label 10 also includes a support portion 12 and a transfer portion 14. (col. 4 ll. 22-23).		
		During label transfer, a small portion of the wax release layer 30 may be transferred along with the transfer portion 14 of the label 10 onto the article being labeled. (col. 4 ll. 27-29).		
		As described above, the transfer portion 14 may include a protective lacquer layer 24 printed directly on top of at least a portion of the wax release layer 30, an ink design layer 26 printed		

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	onto a desired area of the lacquer layer 24, and an adhesive layer 28 printed over the ink design layer 26. The adhesive layer 28 may be further printed onto a surrounding portion of the lacquer layer 24. (col. 4 ll. 31-37).		
	The transfer portion 14 is formed of a protective lacquer layer 24, an ink layer 26, and an adhesive layer 28. (col. 4 ll. 49-51).		
	The ink design layer 26 of the transfer portion 14 may include a conventional polyamide ink (such as in a THERIMAGE [®] label), which may take the form described in one or more of the above-referenced patents. (col. 5 ll. 63-66).		
	The adhesive layer 28 of the transfer portion 14 also includes a hydrocarbon resin, such as a tackifying petroleum hydrocarbon. (col. 6 ll. 24-27).		
	The adhesive layer 28 of the transfer portion 14 also includes a microcrystalline wax. (col. 6 ll. 31-32).		
	Application of the label 10 to such items is preferably performed in the conventional thermal-transfer manner by contacting the adhesive layer 28 to the untreated high-density polyethylene container or other article, while applying sufficient		
	heat to the back of the carrier web so as to cause the transfer portion 14 (and possibly a portion of the skim coat 22) to be released from the support portion 12, and so as to cause the adhesive layer 28 to become heat-activated for bonding of the transfer portion 14 to the desired article. (col. 7 ll.		

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		As mentioned above, one distinct advantage of the label 10 over existing heat transfer labels used on polyethylene, polypropylene, PET, and acrylonitrile articles is the fact that the label 10 does not require any oxidizing pretreatment of the aforementioned polyethylene, polypropylene, PET, or acrylonitrile container for the transfer portion 14 to adhere thereto. (col. 8 ll. 36-42). Prosecution History: The transfer portion includes an adhesive layer comprising the components of the vinyl acetate resin, tackifying petroleum hydrocarbon resin, and microcrystalline wax. As is described throughout the specification, this adhesive layer is used to bond the transfer portion (i.e., that portion of the label removed from the support portion and applied to an article) to an article. (Response to Office Action, December 3, 2008, p. 12). 1. (Presently Amended) A heat transfer label comprising: (b) a transfer portion over said support portion for transfer of the transfer portion, from the support portion to an article that has not undergone an oxidizing treatment, upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax;		

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			wherein said ink layer is disposed between said adhesive layer and said support portion. (Response to Office Action, April 30, 2009, p. 2). See also Response to Office Action, April 30, 2009, pp. 9, 13, 14, 15. See also Request for Continued Examination, June 17, 2009, pp. 2, 9, 13, 14, 15. Extrinsic Evidence		
			Dictionary Definitions:		
			transfer: ✓ v. move (someone or something) from one place to another; he would have to transfer money to his own account ✓ n. an act of moving something or someone to another place (p. 1788).		
			 portion: ▶ n. 1. a part of a whole; an amount, section, or piece of something: a portion of the jetty still stands. (p. 1322). 		
			Testimony:		
			Craig Bushman and JP LaPrade may provide testimony and opinions that the proposed responsive claim construction is correct.		
4	for transfer of the	Multi-Color	Intrinsic Evidence	Not a claim	Intrinsic Evidence
	transfer portion from the support portion to an	proposes the following construction for	Claims:	limitation.	Claims:
	article that has not undergone an oxidizing	"an article that has not undergone an oxidizing	 A heat transfer label comprising: (b) a transfer portion over said support portion for 		1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer

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treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article	treatment"; no construction is required for the remainder of Graphic Packaging's identified term: A container with a polyethylene, polypropylene, PET, or acrylonitrile surface that typically would be, but has not been, subjected to an oxidizing treatment to promote adhesion.	transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article (col. 9 ll. 44-50). Abstract: The article may be untreated polyethylene, polypropylene, PET, or acrylonitrile. Heat is applied to the support portion while the transfer portion is placed into contact with the untreated polyethylene, polypropylene, or acrylonitrile article. (Abstract). Background of Invention: Heat transfer labels are commonly used in the decorating and/or labeling of commercial articles, such as, and without limitation, containers for beverages, essential oils, detergents, adverse chemicals, and health and beauty aids. (col. 1 ll. 11-14). Such heat transfer labels have been used to decorate a variety of articles, such as polyethylene, polypropylene, PET, and acrylonitrile articles such articles may include high-density polyethylene (HDPE) containers, low-density polyethylene (HDPE) containers, and polypropylene containers. (col. 1 ll. 57-62). One disadvantage associated with the use of the aforementioned label, and similar heat transfer labels, on polyethylene, polypropylene, PET, and/or acrylonitrile, is that the label will not adhere to a polyethylene, polypropylene, PET, or acrylonitrile surface unless the surface has		portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57).

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		previously been treated by some oxidizing technique. It is known to those skilled in the art that to effect a bond between article surface and an adhesive including a polyamide, the article surface needs to be oxidized first, as described above. This also is the case for adhesives including chlorinated polyolefins. Such adhesives also need the article surface to be oxidized in order to effectively bond to the article, as described above. Typical oxidizing techniques include flaming the polyethylene, polypropylene, PET, or acrylonitrile surface with an oxidizing flame. Without wishing to be limited to any particular theory as to why pretreatment of the polyethylene, polypropylene, PET, or acrylonitrile surface is necessary for the aforementioned label to adhere thereto, it is believed that untreated polyethylene, untreated polypropylene, untreated PET, or untreated acrylonitrile is a low energy surface made up primarily of hydrocarbons, whereas oxidized or treated polyethylene, polypropylene, PET, or acrylonitrile is a relatively higher energy surface which additionally includes ketones, carboxylic acid groups, etc. Accordingly, because the pretreated polyethylene, polypropylene, PET, or acrylonitrile surface is a higher energy surface than the untreated polyethylene, polypropylene, PET, or acrylonitrile surface, it is more receptive to binding to the adhesive layer of the label. However, pretreatment of the article results in increased time, equipment, and cost in labeling the article. (col. 2 II. 4-35). Thus, it would be desirable to provide a heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		acrylonitrile surfaces, such as untreated high, medium, or low density polyethylene surfaces and/or untreated high, medium, or low density polypropylene surfaces. (col. 2 ll. 36-41).		
		Summary of Invention: The present invention overcomes the drawbacks described above by providing a heat transfer label, which includes (a) a support portion; and (b) a transfer portion over the support portion for transfer of the transfer portion from the support portion to an article upon application of heat to the support portion while the transfer portion is placed into contact with the article, the transfer portion including an adhesive layer including a vinyl acetate resin (such as an ethylene vinyl acetate resin), a tackifying petroleum hydrocarbon, and a microcrystalline wax. (col. 2 ll. 46-55).		
		The adhesive of the label of the present invention can bond to nonoxidized polyethylene, polypropylene, PET, and acrylonitrile surfaces, and thus allows for the elimination of surface pretreatment of the article being labeled. In addition to being directed to the above-described heat transfer label, the present invention is also directed to a method of labeling an untreated polyethylene, polypropylene, PET, or acrylonitrile surface with the above-described heat transfer label. (col. 21. 62 – col. 31. 2).		
		Brief Description of the Drawings: FIG. 1 is a schematic section view of a heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, in accordance with the		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		principles of the present invention. (col. 3 ll. 12-15). FIG. 2 is a schematic section view of another heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, in accordance with the principles of the present invention. (col. 2 ll. 16-19).		
		Detailed Description of the Invention: Referring now to FIG. 1, there is shown a schematic section view of an embodiment of a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, such as untreated high-density polyethylene containers, untreated low-density polypropylene containers, untreated high-density polypropylene containers, and untreated low-density polypropylene containers. (col. 3 ll. 23-30).		
		Referring now to FIG. 2, there is shown a schematic section view of a second embodiment of a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces. (col. 4 ll. 19-22).		
		The microcrystalline wax also promotes adhesion of the label 10 to a nonoxidized article surface. More specifically, the microcrystalline wax allows the formulation of the adhesive to tackify more aggressively at a given temperature. (col. 7 ll. 1-5).		
		The label 10 is particularly well suited for use with untreated polyethylene, polypropylene, PET, and		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		acrylonitrile articles, such as high-density polyethylene articles, including untreated HDPE containers. Application of the label 10 to such items is preferably performed in the conventional thermal-transfer manner by contacting the adhesive layer 28 to the untreated high-density polyethylene container or other article, while applying sufficient heat to the back of the carrier web so as to cause the transfer portion 14 (and possibly a portion of the skim coat 22) to be released from the support portion 12, and so as to cause the adhesive layer 28 to become heat-activated for bonding of the transfer portion 14 to the desired article. Adhesion to the article can be measured by tape test. (col. 7 ll. 32-45). Further, the surface energy of the substrate to which the label 10 is to be applied (i.e., the outer surface of an article) can be tested, in one embodiment, by using ACCU DYNE TEST.TM. Marker Pens, available from Diversified Enterprises, Claremont, N.H. (col. 7 ll. 55-59). The label 10 of the present invention is also suitable for a complete 360-degree wrap around an article being labeled. (col. 8 ll. 19-20). As mentioned above, one distinct advantage of the label 10 over existing heat transfer labels used on polyethylene, polypropylene, PET, and acrylonitrile articles is the fact that the label 10 does not require any oxidizing pretreatment of the aforementioned polyethylene, polypropylene, PET, or acrylonitrile container for the transfer portion 14 to adhere thereto. (col. 8 ll. 36-42).		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		the postflaming described herein merely enhances properties, such as those provided by the wax layer 30. It is not needed to achieve a bond between the label 10 and the article. That bond is achieved, through the present invention, without any oxidation. A postflaming process, however, may serve to otherwise enhance the bond. (col. 9 ll. 14-19). Prosecution History: such as the side surface of an article. All of this is clear from Magnotta's repeated references to (1) its release layer being coated on a carrier web with an ink design layer coated over the release layer, and (2) the release layer allowing transfer of the ink design layer from the carrier web to a plastic or glass container. Request for Continued Examination, June 17, 2009, p. 11. or (2) if any transfer to a container occurred, now the release layer would lie between the ink design layer and container surface, causing the ink design layer to be easily removed from the container (rather than remaining on the container as it is supposed to). In either case, modifying Magnotta to have the presently claimed structure would result in a laminate that does not remain adhered to the side surface of an article, and is therefore inoperable. In other words, one skilled in the art would not make a modification to Magnotta that would destroy its use as a laminate to label a container. Request for Continued Examination, June 17, 2009, p. 12.		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		Examiner's Statement of Reasons for Allowance 9. The following is an examiner's statement of reasons for allowance: All of the claims in the instant application are allowable for the reasons set forth in Applicant's remarks made on pages 7-11 and 12-15 of the amendment filed on June 17, 2009. Notice of Allowance, Sept. 21, 2009, p. 4.		
		Extrinsic Evidence		
		<u>Dictionary Definitions</u> :		
		article: ▶ n. 1. a particular item or object, typically one of a specified type (p. 88)		
		oxidize: ▶ v. combine or become combined chemically with oxygen: [trans.] when coal is burned any sulfur is oxidized to sulfur dioxide [intrans.] the fats in the food will oxidize, turning it rancid. ■ Chemistry undergo or cause to undergo a reaction in which electrons are lost to another species. (See MUCC012982.)		
		treatment: ▶ n • the use of a chemical, physical, or biological agent to preserve or give particular properties to something: the treatment of hazardous waste is particularly expensive. (p. 1794).		
		<u>Testimony</u> :		
		Craig Bushman and JP LaPrade may provide		

	Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
			testimony and opinions that the proposed responsive claim construction is correct.		
5	an article that has not undergone an oxidizing treatment	A container with a polyethylene, polypropylene, PET, or acrylonitrile surface that typically would be, but has not been, subjected to an oxidizing treatment to promote adhesion.	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article (col. 9 ll. 44-50). Abstract: The article may be untreated polyethylene, polypropylene, PET, or acrylonitrile. Heat is applied to the support portion while the transfer portion is placed into contact with the untreated polyethylene, polypropylene, or acrylonitrile article. (Abstract). Background of Invention: Heat transfer labels are commonly used in the decorating and/or labeling of commercial articles, such as, and without limitation, containers for beverages, essential oils, detergents, adverse chemicals, and health and beauty aids. (col. 1 ll. 11-14). Such heat transfer labels have been used to decorate a variety of articles, such as polyethylene, polypropylene, PET, and acrylonitrile articles such articles may include high-density	Not a claim limitation. In any event, no further construction is needed because the terms/phrase may be understood using their plain meaning.	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57).

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		polyethylene (HDPE) containers, low-density		
		polyethylene (LDPE) containers, and		
		polypropylene containers. (col. 1 ll. 57-62).		
		One disadvantage associated with the use of the		
		aforementioned label, and similar heat transfer		
		labels, on polyethylene, polypropylene, PET,		
		and/or acrylonitrile, is that the label will not		
		adhere to a polyethylene, polypropylene, PET, or acrylonitrile surface unless the surface has		
		previously been treated by some oxidizing		
		technique. It is known to those skilled in the art		
		that to effect a bond between article surface and an		
		adhesive including a polyamide, the article surface		
		needs to be oxidized first, as described above. This		
		also is the case for adhesives including chlorinated		
		polyolefins. Such adhesives also need the article		
		surface to be oxidized in order to effectively bond		
		to the article, as described above. Typical		
		oxidizing techniques include flaming the		
		polyethylene, polypropylene, PET, or acrylonitrile		
		surface with an oxidizing flame. Without wishing		
		to be limited to any particular theory as to why		
		pretreatment of the polyethylene, polypropylene,		
		PET, or acrylonitrile surface is necessary for the		
		aforementioned label to adhere thereto, it is		
		believed that untreated polyethylene, untreated		
		polypropylene, untreated PET, or untreated		
		acrylonitrile is a low energy surface made up		
		primarily of hydrocarbons, whereas oxidized or		
		treated polyethylene, polypropylene, PET, or		
		acrylonitrile is a relatively higher energy surface		
		which additionally includes ketones, carboxylic		
		acid groups, etc. Accordingly, because the		
		pretreated polyethylene, polypropylene, PET, or		
		acrylonitrile surface is a higher energy surface than		
		the untreated polyethylene, polypropylene, PET, or		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		acrylonitrile surface, it is more receptive to binding to the adhesive layer of the label. However, pretreatment of the article results in increased time, equipment, and cost in labeling the article. (col. 2 ll. 4-35).		
		Thus, it would be desirable to provide a heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, such as untreated high, medium, or low density polyethylene surfaces and/or untreated high, medium, or low density polypropylene surfaces. (col. 2 ll. 36-41).		
		Summary of Invention: The present invention overcomes the drawbacks described above by providing a heat transfer label, which includes (a) a support portion; and (b) a transfer portion over the support portion for transfer of the transfer portion from the support portion to an article upon application of heat to the support portion while the transfer portion is placed into contact with the article, the transfer portion including an adhesive layer including a vinyl acetate resin (such as an ethylene vinyl acetate resin), a tackifying petroleum hydrocarbon, and a microcrystalline wax. (col. 2 ll. 46-55).		
		The adhesive of the label of the present invention can bond to nonoxidized polyethylene, polypropylene, PET, and acrylonitrile surfaces, and thus allows for the elimination of surface pretreatment of the article being labeled. In addition to being directed to the above-described heat transfer label, the present invention is also directed to a method of labeling an untreated		

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		polyethylene, polypropylene, PET, or acrylonitrile surface with the above-described heat transfer label. (col. 2 l. 62 – col. 3 l. 2).		
		Brief Description of the Drawings: FIG. 1 is a schematic section view of a heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, in accordance with the principles of the present invention. (col. 3 ll. 12-15).		
		FIG. 2 is a schematic section view of another heat transfer label that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, in accordance with the principles of the present invention. (col. 2 ll. 16-19).		
		Detailed Description of the Invention: Referring now to FIG. 1, there is shown a schematic section view of an embodiment of a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces, such as untreated high-density polyethylene containers, untreated low-density polypropylene containers, untreated high-density polypropylene containers, and untreated low-density polypropylene containers. (col. 3 ll. 23-30).		
		Referring now to FIG. 2, there is shown a schematic section view of a second embodiment of a heat transfer label 10 that is particularly well suited for use on untreated polyethylene, polypropylene, PET, or acrylonitrile surfaces. (col.		

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		4 11. 19-22).		
		The microcrystalline wax also promotes adhesion of the label 10 to a nonoxidized article surface. More specifically, the microcrystalline wax allows the formulation of the adhesive to tackify more aggressively at a given temperature. (col. 7 ll. 1-5).		
		The label 10 is particularly well suited for use with untreated polyethylene, polypropylene, PET, and acrylonitrile articles, such as high-density polyethylene articles, including untreated HDPE containers. Application of the label 10 to such items is preferably performed in the conventional thermal-transfer manner by contacting the adhesive layer 28 to the untreated high-density polyethylene container or other article, while applying sufficient heat to the back of the carrier web so as to cause the transfer portion 14 (and possibly a portion of the skim coat 22) to be released from the support portion 12, and so as to cause the adhesive layer 28 to become heat-activated for bonding of the transfer portion 14 to		
		the desired article. Adhesion to the article can be measured by tape test. (col. 7 ll. 32-45). Further, the surface energy of the substrate to which the label 10 is to be applied (i.e., the outer surface of an article) can be tested, in one embodiment, by using ACCU DYNE TEST.TM. Marker Pens, available from Diversified Enterprises, Claremont, N.H. (col. 7 ll. 55-59).		
		The label 10 of the present invention is also suitable for a complete 360-degree wrap around an article being labeled. (col. 8 ll. 19-20).		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		As mentioned above, one distinct advantage of the label 10 over existing heat transfer labels used on polyethylene, polypropylene, PET, and acrylonitrile articles is the fact that the label 10 does not require any oxidizing pretreatment of the aforementioned polyethylene, polypropylene, PET, or acrylonitrile container for the transfer portion 14 to adhere thereto. (col. 8 ll. 36-42).		
		the postflaming described herein merely enhances properties, such as those provided by the wax layer 30. It is not needed to achieve a bond between the label 10 and the article. That bond is achieved, through the present invention, without any oxidation. A postflaming process, however, may serve to otherwise enhance the bond. (col. 9 ll. 14-19).		
		Prosecution History: such as the side surface of an article. All of this is clear from Magnotta's repeated references to (1) its release layer being coated on a carrier web with an ink design layer coated over the release layer, and (2) the release layer allowing transfer of the ink design layer from the carrier web to a plastic or glass container. Request for Continued Examination, June 17, 2009, p. 11.		
		or (2) if any transfer to a container occurred, now the release layer would lie between the ink design layer and container surface, causing the ink design layer to be easily removed from the container (rather than remaining on the container as it is supposed to). In either case, modifying Magnotta to have the presently claimed structure would result in a laminate that does not remain		

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		adhered to the side surface of an article, and is therefore inoperable. In other words, one skilled in the art would not make a modification to Magnotta that would destroy its use as a laminate to label a container. Request for Continued Examination, June 17, 2009, p. 12. Examiner's Statement of Reasons for Allowance 9. The following is an examiner's statement of reasons for allowance: All of the claims in the instant application are allowable for the reasons set forth in Applicant's remarks made on pages 7-11 and 12-15 of the amendment filed on June 17, 2009. Notice of Allowance, Sept. 21, 2009, p. 4.		
		Extrinsic Evidence		
		 <u>Dictionary Definitions</u>: <u>article:</u> ▶ n. 1. a particular item or object, typically one of a specified type (p. 88) 		
		oxidize: ▶ v. combine or become combined chemically with oxygen: [trans.] when coal is burned any sulfur is oxidized to sulfur dioxide [intrans.] the fats in the food will oxidize, turning it rancid. • Chemistry undergo or cause to undergo a reaction in which electrons are lost to another species.		
		treatment: ▶ n • the use of a chemical, physical, or biological agent to preserve or give particular properties to something: the treatment of		

	Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
			hazardous waste is particularly expensive. (p. 1794).		
6	microcrystalline wax	A wax containing saturated linear and branched hydrocarbon chains and cyclic ring molecules, having a melting point between 145°F and 225°F and needle crystalline structure when solidified.	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57). 3. The heat transfer label of claim 2, wherein said vinyl acetate resin is 70% of said adhesive layer, said tackifying petroleum hydrocarbon resin is 25% of said adhesive layer, and said microcrystalline wax is 5% of said adhesive layer. (col. 10 ll. 3-6). 7. The heat transfer label of claim 1, wherein said microcrystalline wax further includes a melting point of 150-180°F, a hardness of greater than 10 dmm at 77°F, and is 30-60% normal paraffins. (col. 10 ll. 16-19).	A wax derived from petroleum and composed of saturated hydrocarbons from between about C ₃₄ H ₇₀ to C ₆₀ H ₁₂₀ that have a molecular weight between about 478 and 840, a substantial portion of which are branched and cyclic, and having a crystalline structure that is small and irregular when solidified. In comparison to paraffin wax, microcrystalline wax has a greater portion of cyclic ring molecules, an increased amount of branching, and contains predominantly malcrystalline and needle-like crystals having	Intrinsic Evidence Claims: 1. A heat transfer label comprising: (a) a support portion; (b) a transfer portion over said support portion for transfer of the transfer portion from the support portion to an article that has not undergone an oxidizing treatment upon application of heat to the support portion while the transfer portion is placed into contact with the article, said transfer portion including at least an ink layer; and an adhesive layer comprising a vinyl acetate resin, a pacifying petroleum hydrocarbon resin, and a microcrystalline wax; wherein said ink layer is disposed between said adhesive layer and said support portion. (col. 9 ll. 44-57). Detailed Description of the Invention: The adhesive layer 28 of the transfer portion 14 also includes a microcrystalline wax. The microcrystalline component of wax release layer 30 may be composed of saturated hydrocarbons of higher melting point than those of paraffin wax. Microcrystalline waxes characteristically contain between about C.sub.34H.sub.70 to C.sub.60H.sub.120 hydrocarbons having molecular weight between about 478 and 840. Microcrystalline waxes (microwaxes) are characterized by an increased amount of branching; although they

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		Abstract: The transfer portion comprises an adhesive layer comprising a vinyl acetate resin, a tackifying petroleum hydrocarbon resin, and a microcrystalline wax. (Abstract). Detailed Description of the Invention: The adhesive layer 28 of the transfer portion 14 may be heat-activatable. In one embodiment, the adhesive layer 28 may include a vinyl acetate resin (such as an ethylene vinyl acetate resin), a tackifying petroleum hydrocarbon resin, and a microcrystalline wax. (col. 4 ll. 13-17) The adhesive layer 28 of the transfer portion 14 includes a vinyl acetate resin, a tackifying petroleum hydrocarbon, and a microcrystalline wax. (col. 6 ll. 13-15). The adhesive layer 28 of the transfer portion 14 also includes a microcrystalline wax. The microcrystalline component of wax release layer 30 may be composed of saturated hydrocarbons of higher melting point than those of paraffin wax. Microcrystalline waxes characteristically contain between about C ₃₄ H ₇₀ to C ₆₀ H ₁₂₀ hydrocarbons having molecular weight between about 478 and 840. Microcrystalline waxes (microwaxes) are characterized by an increased amount of branching; although they contain straight chain molecules, they are not as linear a saturated hydrocarbon as paraffin wax. Also compared to paraffin wax, they contain a greater portion of cyclic ring molecules. The crystalline structure of the microcrystalline wax contains predominantly malcrystalline and needle-like crystals having very	very small, undefined form when compared with the plate-like crystalline structure of paraffin wax under the same magnification. Hard microwaxes have a melting point between about 190° F210° F.; the plastic microwaxes a melting point between about 145° F175° F.; the emulsifiable crystalline waxes between about 190° F225° F.; and modified microwaxes between about 165° F220° F.	contain straight chain molecules, they are not as linear a saturated hydrocarbon as paraffin wax. Also compared to paraffin wax, they contain a greater portion of cyclic ring molecules. The crystalline structure of the microcrystalline wax contains predominantly malcrystalline and needle-like crystals having very small, undefined form when compared with the plate-like crystalline structure of paraffin wax under the same magnification. Thus, the crystalline structure of microcrystalline wax is small and irregular when solidified from the melted wax. In solvents, microcrystalline wax discloses no well-formed crystals of any size. (col. 6 ll. 31-50). The classes of microwaxes vary principally in their melting point range. For example, the so-called hard microwaxes have a melting point between about 190° F210° F.; the plastic microwaxes a melting point between about 145° F175° F.; the emulsifiable crystalline waxes between about 190° F225° F.; and modified microwaxes between about 165° F220° F. Extrinsic Evidence Chemical Encyclopedia: Microcrystalline wax is a petroleum wax containing substantial proportions of branched and cyclic saturated hydrocarbons, in addition to normal alkanes.

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		small, undefined form when compared with the plate-like crystalline structure of paraffin wax under the same magnification. Thus, the crystalline structure of microcrystalline wax is small and irregular when solidified from the melted wax. In solvents, microcrystalline wax discloses no well-formed crystals of any size. Small amounts of microwax may be added to the formulation for wax release layer 30, since microwax imparts a measure of plasticity to the paraffin wax components, since the paraffin wax is rather brittle and would, by itself, tend to cause cracks or fissures in a wax release layer 30. Because of its diminished crystalline structure, microwax contributes little potential hazing or halo effect. (col. 6 ll. 31-56). The classes of microwaxes vary principally in their melting point range. For example, the so-called hard microwaxes have a melting point between about 190° F210° F.; the plastic microwaxes a melting point between about 145° F175° F.; the emulsifiable crystalline waxes between about 190° F225° F.; and modified microwaxes between about 190° F220° F. All of these various types of microwaxes may be employed in the present formulation. An illustrative, commercially available microcrystalline wax that is particularly suitable in the present formulation is available under the Victory White trade name from the Petrolite Corporation. (col. 6 ll. 75-67).		Semimicrocrystalline wax contains more branched and cyclic compounds than paraffin wax, but less than microcrystalline. ⁶ (p. 618; see also information at p. 619) Jeff Sloat and/or Saif Ansari, Graphic Packaging International. Inc., may provide testimony and opinions that the construction is correct.
		The microcrystalline wax also promotes adhesion of the label 10 to a nonoxidized article surface.		

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		More specifically, the microcrystalline wax allows the formulation of the adhesive to tackify more aggressively at a given transfer temperature. This temperature is generally about 260° F. in one embodiment of the present invention. The presence of the microcrystalline wax in the formulation imparts a sharper melting point to the formulation, thereby making the adhesive more aggressive at a given temperature. (col. 7 ll. 1-9). Further, the microcrystalline wax helps prevent or minimize the potential for label blocking when the labels 10 are in roll form. As is well known to those skilled in the art, when labels are packaged in a roll, the labels contact one another, such that the adhesive on one label may come into contact with a surface of an adjacent label. Should the roll of labels be inadvertently subjected to temperatures at which the adhesive will begin to tackify, the labels may adhere, i.e., become "blocked," to one another. The presence of the microcrystalline wax in the adhesive formulation softens and begins to flow at increased temperatures, and prevents bonding sufficient to block the labels. (col. 7 ll. 10-21).		
		One example of an adhesive composition that may be used to form the adhesive layer 28 has the following composition: 70% ELVAX® 40-W, 25% Escorez 1315, and 5% Victory White Wax dissolved to 25% solids in toluene. (col. 7 ll. 22-25). with the microcrystalline wax incorporated into the adhesive formulation, any trailing edge of the label of the present invention can overlap the leading edge without the problem of a separate		

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		wax layer preventing bonding of the trailing edge. (col. 8 ll. 31-35).		
		Extrinsic Evidence		
		<u>Dictionary Definitions</u> :		
		microcrystalline: ► adj. (of a material) formed of microscopic crystals. (p. 1071)		
		wax: $\triangleright n$ • a similar viscous substance, typically a lipid or hydrocarbon (p. 1900)		
		Chemical Dictionary: 4 microcrystalline wax: (amorphous or petrolatum wax). A hydrocarbon wax obtained from petroleum that consists of extremely fine crystals. Stickier than paraffin wax and has higher viscosity than paraffin wax when melted. Properties: MP 145-190°F. (p. 751).		
		Chemical Encyclopedia:5		
		Typical carbon numbers are n=20-50 for paraffin waxes and n=30-70 for microcrystalline waxes. (p. 132).		
		Expert Testimony: In addition to the evidence detailed above, Multi-		

⁴ HAWLEY'S CONDENSED CHEMICAL DICTIONARY (14th ed. 2001). ⁵ CONDENSED ENCYCLOPEDIA OF POLYMER ENGINEERING TERMS

	Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
			Color expects to rely on the expert opinion of Dr. Alan Levine, who if called upon to testify, will state that a person of ordinary skill in the art – relying on both intrinsic and extrinsic evidence - would understand the term microcrystalline wax as used in the claims of '171 Patent to mean: "A wax containing saturated linear and branched hydrocarbon chains and cyclic ring molecules, having a melting point between 145°F and 225°F and needle crystalline structure when solidified."		
7	release agent	No construction required. Alternatively, "release agent included in the transfer portion."	Intrinsic Evidence Claims: 10. The heat transfer label of claim 8, wherein said transfer portion further comprises a release agent and at least one of a hard polyester resin and an acrylic resin. (col. 10 ll. 28-30). 11. The heat transfer label of claim 10, wherein said release agent is a surfactant or a wax. (col. 10 ll. 31-32). 12. The heat transfer label of claim 11, wherein said release agent is selected from the group consisting of dioctyl sodium sulfosuccinate in mineral seal oil, ethoxylated alcohol, and carnauba wax. (col. 10 ll. 33-36). 13. The heat transfer label of claim 12, wherein said release agent is carnauba wax. (col. 10 ll. 37-38). Detailed Description of the Invention: The protective lacquer layer 24 may include a release agent and at least one of a hard polyester	release agent included in the protective lacquer layer	Intrinsic Evidence Claims: 10. The heat transfer label of claim 8, wherein said transfer portion further comprises a release agent and at least one of a hard polyester resin and an acrylic resin. (col. 10 ll. 28-30). 11. The heat transfer label of claim 10, wherein said release agent is a surfactant or a wax. (col. 10 ll. 31-32). Detailed Description of the Invention: The protective lacquer layer 24 may include a release agent and at least one of a hard polyester resin or an acrylic resin. (col. 5 ll. 7-8). Extrinsic Evidence Jeff Sloat and/or Saif Ansari, Graphic Packaging

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		resin or an acrylic resin. (col. 5 ll. 7-8). Prosecution History: In fact, as the layer of Magnotta is a release layer, it is important that the layer of Magnotta not have any adhesive qualities. The entire purpose of the layer in Magnotta is to allow the laminate to release from the carrier web. (Response to Office Action, December 3, 2008, p. 11). See also Response to Office Action, April 30, 2009, p. 11. See also Request for Continued Examination, June 17, 2009, p. 11. 21. (Presently Amended) The heat transfer lasbel label of claim 1, further comprising a release layer wax like skim coat interposed between said support portion and said transfer portion, the release layer chosen from a wax release layer having wax in an amount of 6 to 8 pounds per ream, or a non-wax release layer including a wax skim coat in the amount of 0.25 to 1.00 pound per ream. (Response to Office Action, December 3, 2008, p. 5).		International, Inc., may provide testimony and opinions that the construction is correct.
		Extrinsic Evidence Dictionary Definitions: release: ▶ v. 1. allow or enable to escape from confinement; set free • remove restrictions or obligations from (someone or something) so that they become available for other activity • allow (something concentrated in a small area) to spread and work freely (p. 1430).		

	Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
			agent: ▶ n 2. a person or thing that takes an active role or produces a specified effect (p. 30). Chemical Dictionary: release: (1) Separation of a cured or baked product from the metal mold or pan in which it is formed. Common release agents for rubber and plastics are waxy or fatty materials such as paraffin and tallow (p.957).		
8	hard polyester resin	polyester polymer that is resistant to surface indentation	Intrinsic Evidence Claims: 9. The heat transfer label of claim 8, wherein said protective lacquer layer further comprises a hard polyester or acrylic resin being a copolyester resin having a high tensile strength of 8000 psi, a low elongation of 7%, a 79 D scale Shore Durometer hardness, and a 156.degree. C. ring and ball melt flow point. (col. 10 ll. 22-27). 10. The heat transfer label of claim 8, wherein said transfer portion further comprises a release agent and at least one of a hard polyester resin and an acrylic resin. (col. 10 ll. 28-30). Detailed Description of the Invention: The protective lacquer layer 24 may include a release agent and at least one of a hard polyester resin or an acrylic resin. An example of a hard polyester resin is ViTEL® 2300 (Shell Chemical	copolyester resin having a high tensile strength of 8000 psi, a low elongation of 7%, a 79 D scale Shore Durometer hardness, and a 156°C ring and ball melt flow point	Intrinsic Evidence Claims: 9. The heat transfer label of claim 8, wherein said protective lacquer layer further comprises a hard polyester or acrylic resin being a copolyester resin having a high tensile strength of 8000 psi, a low elongation of 7%, a 79 D scale Shore Durometer hardness, and a 156.degree. C. ring and ball melt flow point. (col. 10 ll. 22-27). 10. The heat transfer label of claim 8, wherein said transfer portion further comprises a release agent and at least one of a hard polyester resin and an acrylic resin. (col. 10 ll. 28-30). Detailed Description of the Invention: An example of a hard polyester resin is ViTEL.RTM. 2300 (Shell Chemical Company,

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		Company, Akron, Ohio), a copolyester resin having a high tensile strength of 8000 psi, a low elongation of 7%, a 79 D scale Shore Durometer hardness, and a 156.degree. C. ring and ball melt flow point. An example of a lacquer composition for use in forming protective lacquer layer 24 is the following: ViTEL® 2300 (21.4% by weight); nitrocellulose (4.5% by weight); AEROSOL® OTMSO dioctyl sodium sulfosuccinate in mineral seal oil (4.5% by weight); castor oil (0.9% by weight); toluene (27.4% by weight); methyl ethyl ketone (MEK) (20.4% by weight); and ethyl acetate (20.4% by weight). (col. 5 ll. 7-20).		Akron, Ohio), a copolyester resin having a high tensile strength of 8000 psi, a low elongation of 7%, a 79 D scale Shore Durometer hardness, and a 156.degree. C. ring and ball melt flow point. (col. 5 ll. 8-13). Extrinsic Evidence Jeff Sloat and/or Saif Ansari, Graphic Packaging International, Inc., may provide testimony and opinions that the construction is correct.
		Extrinsic Evidence		
		<u>Dictionary Definitions</u> :		
		 hard: ▶ adj. 1. solid, firm, and resistant to pressure; not easily broken, bent or pierced (p. 768). 		
		polyester: ▶ n. a synthetic resin in which the polymer units are linked by ester groups, used chiefly to make synthetic textile fibers. (p. 1315).		
		resin: ▶ n. a sticky flammable organic substance, insoluble in water, exuded by some trees and other plants (notably fir and pine) • (also synthetic resin) a solid or liquid synthetic organic polymer used as the basis of plastics, adhesives, varnishes,		

Disputed Claim Term	Plaintiff Proposed Construction	Plaintiff Citation to Intrinsic and Extrinsic Evidence ¹	Defendant Proposed Construction	Defendant Citation to Intrinsic and Extrinsic Evidence
		or other products. (p. 1441). Engineering Materials: ⁷		
		hardness: The resistance to surface indentation		
		Chemical Dictionary:		
		polyester resin: Any of a group of synthetic resins, which are polycondensation products of dicarboxylic acids with dihydroxy alcohols. They are thus a special type of alkyd resin but, unlike other types, are not usually modified with fatty acids or drying oils. The outstanding characteristics of these resins is their ability, when catalyzed, to cure or harden at room temperature under little or no pressures. Most polyesters now produced contain ethylenic unsaturation, generally introduced by unsaturated acids. The unsaturated polyesters are usually cross-linked through their double bonds with a compatible monomer, also containing ethylenic unsaturation, and thus become thermosetting Polyesters are resistant to corrosion, chemicals, solvents, etc (p. 893).		
		Expert Testimony:		
		In addition to the evidence detailed above, Multi-Color expects to rely on the expert opinion of Dr. Alan Levine, who if called upon to testify, will state that a person of ordinary skill in the art – relying on both intrinsic and extrinsic evidence - would understand the term hard polyester resin as		

⁷ Engineered Materials Handbook, Vol. 1 (Composites)

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		used in the claims of '171 Patent to mean: "polyester polymer that is resistant to surface indentation."		